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An Essay

Cholera Infantum

In the degree of Doctor of Medicine
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by
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of
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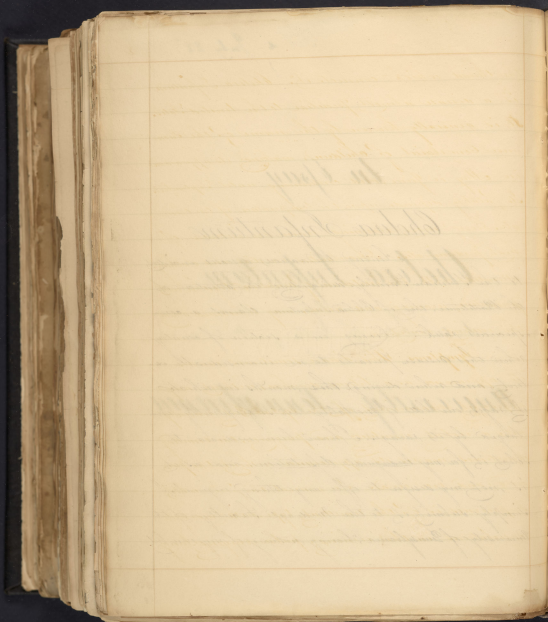
In Reply

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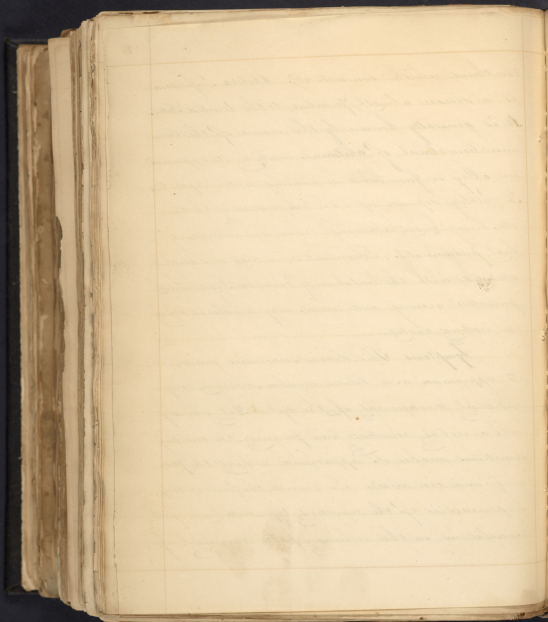
Cholera Infantum

Among the various diseases incident to the Human Family, demanding the attention of the Practitioner, that of Cholera Infantum claims a conspicuous rank. Living in a section of country where this disease prevails to me in considerable extent, and where during those months in which it rages, our loss of mortality is so frequently enlarged by its ravages. I have been induced to select it for my inaugural dissertation, and as it is not my design to offer any thing original, I simply submit it to the Medical Faculty of the University of Pennsylvania, bearing nothing of my own but



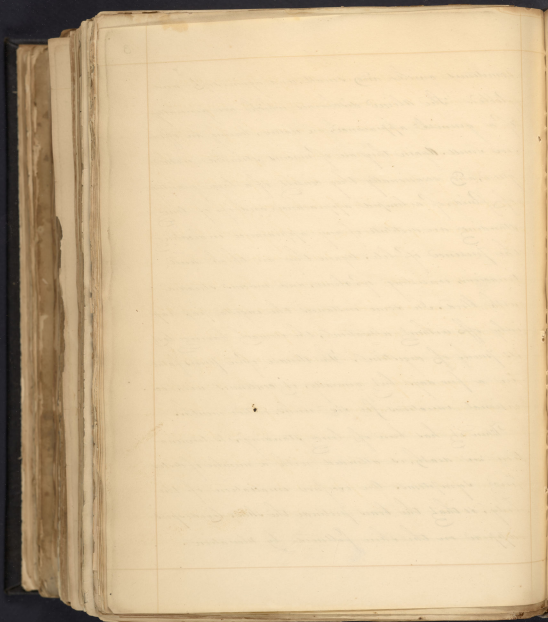
the throat which connects it. Cholera Infantum is a disease almost peculiar to the United States. It is generally known by the name of the Summer Complaint of Children, making its appearance in May or June, and continuing until September. Its fatality depends upon the temperature of the climate, being most alarming when an increase of heat predominates. Irregularities in diet and clothing, attended with the irritation of putridism together with premature weaning and secret, may be reckoned among the exciting causes.

Symptoms This disease sometimes makes its appearance as a bilious diarrhoea, without any apparent derangement of the system. But generally with a violent vomiting and purging, the vomiting sometimes makes its appearance without the purging, and vice versa. In general the fever which supervenes is of the remittent type, with marked exacerbations in the evening, pulse varying being



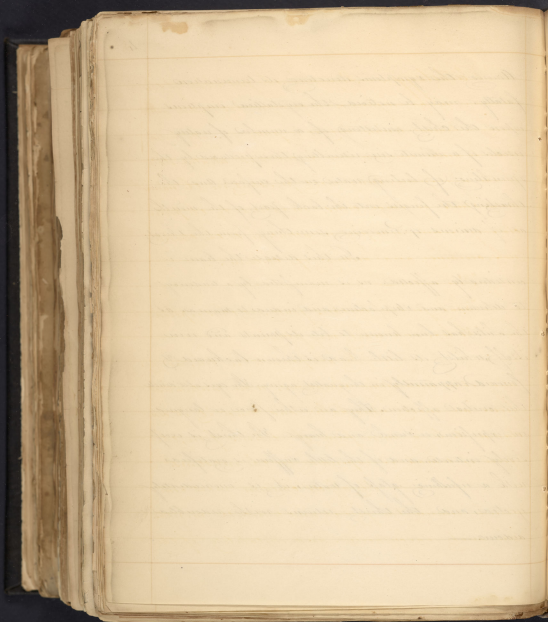
sometimes quick, and small, and again, soft and flabby. The blood discharges which are generally of a greenish appearance, are watery, having an offensive smell. Again they are of mucous streaks with guaiacum occasionally they consist of a large quantity of fluid, of a limpid appearance, and are of long standing are destitute of any appearance indicating the presence of bile. Again they are thick and tenacious, consisting of shreds, and mucous streaks with blood. In some instances the ingesta pass rapidly off without alteration, the stomach having lost its power of digestion. The disease often proves fatal in a few days, but generally it continues with occasional remissions, for six weeks, or two months.

When it has been of long standing, its termination in death, is attended with a number of distressing symptoms. One of the most remarkable of the latter, is that the horse prurges the skin. Erysipelas appears on the skin followed by ulceration.



Among the symptoms denoting its termination fatally, may be noticed the erythematous eruptions upon the chest, consisting of a number of watery vesicles of a minute size, resembling those produced by the sprinkling of boiling water on the surface, and the thrusting the finger into the back part of the mouth as if desirous of removing something from the throat.

In this disease the brain is considerably affected, as is manifested by a tendency to delirium and stupor, and in some to mania, as the author has been known to see its patients and even itself, whilst its little head is thrown backward & forward apparently in the greatest agony. The eyes also denote this cerebral affection. They are either fixed or languid, unexpressive, sunk and heavy. The thirst is exceedingly intense, and if the little sufferer is gratified with a refreshing glass of water, it is immediately quenched, and the thirst returns with redoubled ardour.

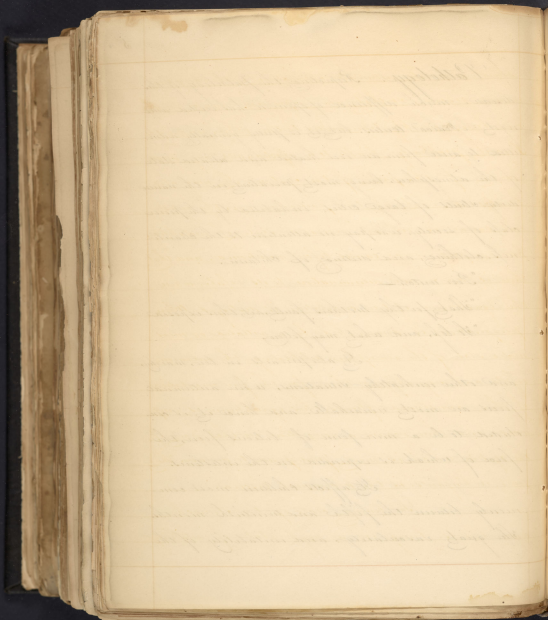


Pathology. Respecting the pathology of the disease, much difference of opinion has existed amongst Medical Writers, but it is pretty generally admitted to arise from an over heated and vitiated state of the atmosphere, being most prevalent in the summer & autumn of large cities, inhabited by the poorer class of society, who pay no attention to the cleanliness, clothing, and dieting of children.

"Prevention—
 That for thy mother's fault, art thus exposed
 To what's to come, and what may follow."

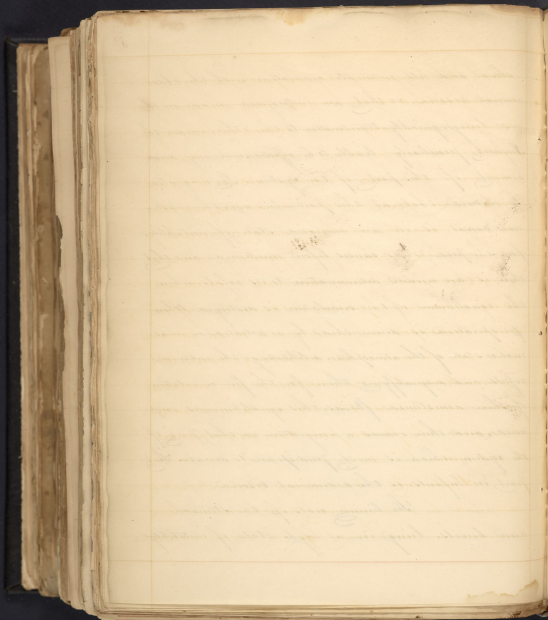
It also prevails in low, marshy, and other unhealthy situations, when autumnal fevers are most remarkable, and hence it is concluded to be a more form of bilious fever, the force of which is expended on the intestines.

It affects children most commonly between the fifth and seventh months. The great vascularity, and irritability of the



stomach and its intimate connection with the abdominal viscera, so that an impression made on the one being quickly transmitted to the other, render the Infants peculiarly liable to be affected with any derangement of this part of the system. It may also be observed that at this particular age the intestinal canal is in an increased state of irritability from the predisposing causes before mentioned, and that there is an undue determination to its vessels, when the equilibrium of the circulation is disturbed. When perspiration is diminished by a vitiated or miasmatic state of the atmosphere, debilitating the cutaneous vessels, and disqualifying them for the free circulation of their accustomed fluids, this equilibrium is impaired, and there occurs a congestion in that part of the system which is most predisposed to increase. That part, in Infants, is the abdominal viscera.

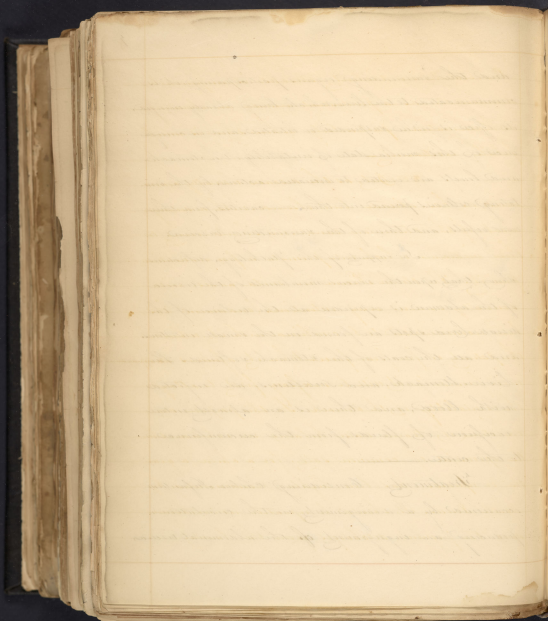
The lining coats of the stomach and bowels, being in a high state of irritability



and the surrounding organs participating, it is communicated to the liver, which being already engaged, its office is either suspended or vitiated, and in consequence of this morbid state of irritability the stomach and bowels are excited to increased action by the irritating column poured into their own cavities, from their own vessels, and those of the surrounding viscera.

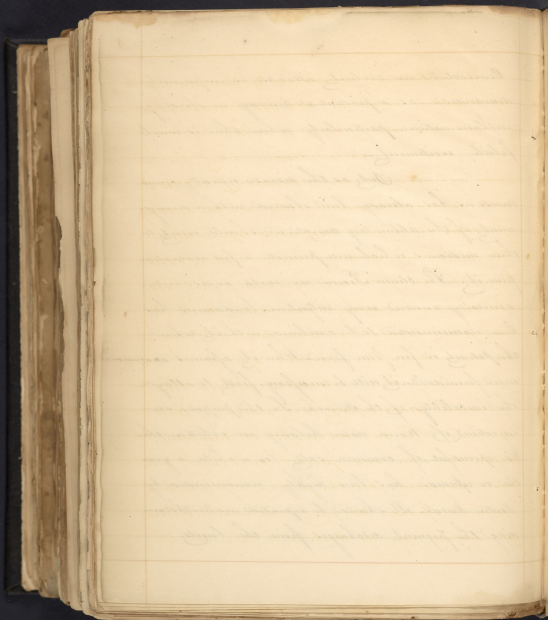
In support of this pathology, dissections show, that upon the mucous membrane of the viscera of the abdomen, is expended all the violence of the disease. Ecchymotic spots are found in the small intestines, and all the coats of the stomach softened. The Liver, stomach, and intestines, are injected with blood, and there is an almost entire reception of fluids, from the circumference to the centre.

Treatment. Considering *Cachexia Infantum* occasioned by a derangement in the circulation, producing an engorgement of the abdominal viscera,



Opuscular in violent attacks, is imperiously demanded, as a prudent remedy in striking inflammation, particularly when there is much febrile excitement.

But as the disease usually commences, as has already been observed, with a derangement of the alimentary canal, we should resort to those medicines which will promote a free evacuation from it. The Chinese Purgative in mild cases, will generally answer every intention. Laudanum has been recommended to be combined with it, when the patient is free from fever. When it assumes an oppressed more formidable, it will be necessary, first, to allay the irritability of the stomach. In this purpose an injection of Warm water holding in solution three tea spoonful of common salt, for a child a year old or upwards, has been highly recommended by Doct^r Linnæus. It should be repeated notwithstanding the frequent discharges from the bowels.



Warm bathing, fomentations & hard also been recommended, as well as Milk and lime water, and strong coffee, without sugar or milk.

Notwithstanding what has been said, against the administration of Emetics I am inclined to recommend them on the authority of Doctors Rush and Chapman's experience, in the early form of our disease, which is characterized by the following symptoms, great gastric uneasiness, vomiting, pain about the umbilicus, fever, a quick irritated pulse, white tongue and state of the skin, and loss of appetite.

Emetics relieve the stomach, and impart to it a degree of tone, determine to the surface, equalize the circulation, soften the skin, and prevent subsequent visceral congestion. For this purpose a preparation given to Ipecac. The great indication in Cholera Infantum, says Dr. Keen is to tranquilize the

stomach, and if the disease has been produced by any irritating matter in it, it should be our first endeavor to remove it, by encouraging the vomiting by draughts of warm or cold water, unless no foreign substance appears in the matter ejected.

It will now be proper to administer cathartics, and calomel in minute dose is preferred to Chelid, this medicine is peculiarly adapted, from its being without taste or smell, and from the minuteness of the dose required to produce the desired effect, it will remain on the stomach, when almost any other medicine would be ejected; It should not be discontinued after repeated operations, or when a thorough evacuation has been effected, but given less frequently to prevent a reaccumulation of bilious matter.

Our next resort should be to those remedies which tranquilize the stomach, and determine to the surface for this purpose we prescribe calomel, opium and Spum. in dose. *pro re nata.*

Should irritation of the stomach continue, and urgent
 temperature prevail, much benefit may be derived from
 Viscera. They should be applied over the stomach,
 abdomen, or to the extremities. Amongst our rem-
 edies for equalizing the circulation, the warm bath
 should not be forgotten. By immersing the patient
 in warm water, the temperature becomes adjusted,
 and an universal glow is diffused over the entire
 surface of the body. But as the warm bath is not
 calculated to make a permanent impression, it should
 be repeated daily, or oftener, and to render it more
 effectual, the addition of a little Mustard, Salt, or
 brandy will be found a valuable acquisition.

If the bowels continue in
 a highly irritable state, with bloody evacuations,
 the chaginous mixture is recommended, consisting
 of Gum. Acacia, and tirial. Opium
 or perhaps what is preferable, a preparation of
 datum. Gumbe. Spread, and Opium.

Cholera Infantum sometimes runs into diarrhoea, with tormina, and tenesmus, the stomach becoming greatly debilitated, and incapable for the retention of whatever may be received into it.

During this stage, the discharges are green, and watery, manifesting a predominance of acids. The remedies, under such circumstances, should consist of the alkaline and cutaneous preparations, a combination of Rhubarb and calomel magnesia, may be resorted to, with advantage.

When the stomach is tranquilized, and the alimentary canal has been sufficiently operated on, it will be proper to administer Astringents. It was formerly the practice to commence, at once, with them, without previously preparing the system for their reception. But it was marked with the alarming fatality which must of necessity attend it, by such a practice, we palliate only the effects, whilst the exciting cause

is supposed to remain like a vomit the last, to hasten the salutary, & delicious repose, by a return of the disordered action of the intestines.

Combinations of chalk with wine, and an infusion of Elix. with laudanum, are highly reputed. An infusion of logwoods, of pomegranate bark, of dew-berry roots, or of red oak bark, in decoction of a demulcent spiritus, are said to be of advantage.

I would also call the attention of Physicians to the *Sesamum orientale*, or Indian plant. It has been found, in every stage of Cholera Infantum, one of the best mucilaginous drinks that can be given. A half of the plant put into a tumbler of cold water, and suffered to remain a few minutes, imparts to it a great quantity of mucilage perfectly tasteless, which is taken up by the little sufferer with great avidity. It forms also a valuable injection in the

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Kind of Cholera attended with dysenteric symptoms. It is cultivated in many of our gardens to the South, and is freely made use of, not only in Cholera Infantum, but also, as a drink in Pthisis Pulmonalis, Catarrh, Gonorrhoea, Dysentery, and Diarrhoea, and, I have no doubt, will be found a valuable addenda, in many of the diseases mentioned above.

When the mucous tip of the bowels is disordered, the tongue becoming loaded and the stools slimy, the Spirit of Turpentine in doses of from five to twenty drops, three or four times a day, in sweetened water, will be found beneficial. Let it be remembered, that signal advantage has been derived, from clearing the flannel rollers.

Regiment. The diet should consist exclusively of breast milk. In the commencement of the disease, it will sometimes run off itself, and

Warm tea, Rice, and barley water, when the breast
is refused. The farinacea in more advanced
stages may be given. Lapideae Ancestris &c. and
ham and salt fish, when there is great irritability
of the stomach.

Now all our remedies, country
air is to be resorted to, has been found of infi-
nite advantage in all stages of the disease, and
when it cannot be obtained frequently changes
by riding and sailing, must be had recourse
to; for as long as a child remains exposed
to the operation of the causes of the disease, the
Physician may suspend or palliate, but its
return as a relapse, with a final extinction of
strength, blots all his hopes of a recovery, and
he has the mortification of seeing his patient expire
under the most judicious treatment.

